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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,575	01/15/2002	Jorg Langowski	4139-122	2920

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INTELLECTUAL PROPERTY / TECHNOLOGY LAW  
PO BOX 14329  
RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

WALLENHORST, MAUREEN

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/913,575	<b>Applicant(s)</b> LANGOWSKI, JORG	
	<b>Examiner</b> Maureen M. Wallenhorst	<b>Art Unit</b> 1743	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/7/01</u> . | 6) <input type="checkbox"/> Other: ____.  |

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1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it is not in single paragraph form. In addition, the reference numerals in parentheses and the legal phraseology such as "comprises" should be removed from the abstract. Also, the heading "ABSTRACT" should be provided at the top of the page. Correction is required. See MPEP § 608.01(b).
4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 1 of claim 1, the word "especially" is indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). On line 4 of claim 1, it is suggested to change the phrase "characterized by" to "comprising" or "consisting of" so as to use standard U.S. terminology for the transitional phrase between the preamble and the body of the claim.

In claim 3, the phrase "the focus" lacks antecedent basis. See this same problem on line 2 of claim 9.

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On line 2 of claim 6, the phrase "the optic axis" lacks antecedent basis.

Claim 8 is indefinite since it does not positively recite that the plunger is inserted into the sample vessel.

On line 1 of claim 14, the phrase "wherein the wherein" does not make proper sense.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stabile et al in view of Tolles (US Patent no. 4,432,642, submitted in the Information Disclosure Statement filed on December 7, 2001).

Stabile et al teach of a device and method for detecting light from closely spaced detection sites. Stabile et al teach that the device is suitable for use in fluorescence correlation spectroscopy. See lines 22-31 in column 3 of Stabile et al. The device comprises a vessel holder in the form of a planar substrate having a plurality of detection sites thereon. The detection sites are concave depressions for holding a liquid. The surfaces of the depressions have a reflective

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coating thereon to reflect light emitted from the detection sites. The concave depressions have a parabolic shape since both concave and parabolic mean "bowl-shaped". See lines 50-57 in column 2 of Stabile et al. The embodiment depicted in Figure 4 of Stabile et al shows a detection device 400 having a vessel holder 405 with individual wells or vessels therein. The bottoms of the vessels are coated with a focusing reflective coating. The vessels are covered with a common cover 418 that is transparent to light. Light sources 415 are mounted to the cover 418 that each individually address a separate vessel or well in the holder 405. Stabile et al fail to teach that the common cover 418 has plungers with light windows thereon for individually inserting into the wells or vessels on the holder 405.

Tolles teaches of a nephelometer for photometrically measuring light scattered by particles in a liquid sample that comprises a specimen vessel holder 10 and a common, removable cover 11. The specimen holder cover 11 has integrally formed thereon a plurality of identical depending immersion light pipes or plungers 18, one for each specimen well 13 in the holder 10. The depending plungers 18 have light windows thereon that are partly immersed in the liquid specimens 12 contained in the wells. Tolles teaches that light from a light source 20 is focused through the plungers 18 into the liquid specimens 12. Tolles teaches that the plungers 18 eliminate open surfaces and air gaps in the optical path from the light source through the specimen holder to obtain improved measurement results. See lines 22-31 in column 2 and Figures 3 and 5 in Tolles.

Based upon the combination of Stabile et al and Tolles, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide the common cover 418 in the detection device used for fluorescence correlation spectroscopy taught by Stabile et al

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with plungers with light windows thereon for individually inserting into the wells or vessels on the holder 405 since Tolles teaches that plungers with light windows provided on a common cover for a specimen holder having a plurality of vessels therein provides the advantage of eliminating open surfaces and air gaps in the optical path from a light source through the specimen holder to obtain improved measurement results.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stabile et al in view of Tolles as applied to claims 1-6 and 8-14 above, and further in view of Salzman et al (US Patent no. 4,200,802, submitted in the Information Disclosure Statement filed on December 7, 2001). For a teaching of Stabile et al and Tolles, see previous paragraphs in this Office action. Stabile et al fail to teach that the walls of the vessels in the specimen holder have openings therein for the supply and removal of liquid samples.

Salzman et al teach of a cell analysis apparatus comprising a parabolic cavity with continuous walls 14. The walls of the cavity are coated with a reflective coating to provide a focus. A beam of light is passed through the focus to perpendicularly illuminate the cells in the cavity. Light scattered or fluoresced by the cells is collected after it reflects from the walls of the cavity. Intensity distribution of the light is utilized to determine preselected characteristics of the cells. The cavity has an opening where a nozzle 22 is inserted for introducing a sample of cells into the cavity, and an opening 24 where sample is collected and drained from the cavity after the cells have been measured. See Figures 1 and 2 in Salzman et al.

Based upon the combination of Stabile et al, Tolles and Salzman et al, it would have been obvious to one of ordinary skill in the art at the time of the instant invention to provide the walls of the vessels in the specimen holder taught by Stabile et al with openings therein, similar to the

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openings 22 and 24 in the cavity taught by Salzman et al, so as to provide for the automatic supply and removal of liquid samples to the vessels while eliminating the manual pipetting of samples to and from the vessels so that the process can be performed faster and more efficiently.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Please make note of: Tewes et al who teach of a method and device for performing fluorescence correlation spectroscopy, Terasaki et al who teach of a specimen holder with a plurality of vessels therein and a common cover having a plurality of projections on the cover for individually inserting into the vessels; and WO 95/22406, which corresponds to DE 4405375 cited on the Information Disclosure Statement dated December 7, 2001.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maureen M. Wallenhorst whose telephone number is 571-272-1266. The examiner can normally be reached on Monday-Wednesday from 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden, can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Maureen M. Wallenhorst  
Primary Examiner  
Art Unit 1743

mmw

September 20, 2004

*Maureen M. Wallenhorst*  
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